

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
9 September 2005 (09.09.2005)

PCT

(10) International Publication Number  
**WO 2005/082810 A1**

(51) International Patent Classification<sup>7</sup>: **C04B 41/50046**, 14/28, C03C 25/10

(21) International Application Number: PCT/IB2004/000226

(22) International Filing Date: 30 January 2004 (30.01.2004)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): **MILLENNIUM CHEMICALS** [GB/GB]; Grimsby North East, Lincolnshire, Lincolnshire DN41 8DP (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GOODWIN, Graham** [GB/GB]; 76 Blundell Avenue, Cleethorpes, N.E. Lincolnshire DN35 7PT (GB). **STRATTON, John** [GB/GB]; 59 Seaford Road, Cleethorpes, N.E. Lincolnshire DN35 ONE (GB). **MCINTYRE, Robert** [GB/GB]; 14 Blue Stone Rise, Highfields, Louth LN11 9XZ (GB).

(74) Agent: **LE COUPANECK, Pascale**; Nony & Partners, 3, Rue De Penthièvre, F-75008 Paris (FR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/082810 A1

(54) Title: COMPOSITION FOR USE NO<sub>x</sub> REMOVING TRANSLUCENT COATING

(57) Abstract: The present invention concerns a NO<sub>x</sub> removing composition for use as a translucent coating on construction material surface, comprising at least: a) photocatalytic titanium dioxide particles having at least a de-NO<sub>x</sub> activity, b) particles having a de-HNO<sub>3</sub> activity, and c) a silicon based-material in which said particles are dispersed, wherein said photocatalytic particles have a crystalline size ranging from 1 to 50 nm and particles of a) and b) being present in an amount lower than 20% by weight of the total weight of said composition.